

Study's 5-second rule results disputed

By Akron Beacon Journal, adapted by Newsela staff

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Tyler, 7, (left) and Logan, 5, have lunch with mom Cindy Waddell at a Chick-Fil-A on April 3, 2013.

A new study appears to prove what every 12-year-old knows: If you drop food on the floor, you have five seconds until it becomes contaminated with bacteria that could give you food poisoning.

Students at Aston University in Birmingham, England, tested the age-old five-second rule and claim to have found some truth to it. The faster you pick food up off the floor, they discovered, the less likely it is to contain bacteria.

Working under the direction of professor Anthony Hilton, the students dropped toast, pasta, cookies and sticky candy on the floor. Then they left the food on the floor for three to 30 seconds, according to information released on the university's website on March 10.

Students then monitored the transfer of two common bacteria, *Escherichia coli* and *Staphylococcus aureus*—commonly called E.coli and staph. The bacteria, they concluded, do a pretty lousy job at moving from floor to food, especially when the food isn't given much time to be a target.

Not So Fast, Expert Says

The type of surface mattered, too. Bacteria were least likely to transfer from carpet and most likely to transfer from laminate or tile, the study found.

But don't go picking fallen Fritos out of the rug just yet.

The study contradicts earlier research at Clemson University. Scientists at Clemson tested how fast a bacteria called *Salmonella Typhimurium* made its way from flooring surfaces to bologna and bread. It happened instantly, the researchers found.

What's more, the British study apparently hasn't been published yet in a scientific journal, noted Jeffrey T. LeJeune, a food safety expert at the Ohio Agricultural Research and Development Center. Since the study's findings aren't available to other researchers, he said, there's no way to replicate the study or determine whether the results are accurate.

"I would be very skeptically cautious about the results, and even more about the interpretation," he said.

"1 Second Is Too Long"

LeJeune is a professor and head of the Food Animal Health Research Program at the Ohio center. He said that eating food off the floor violates pretty much every recommended method for preventing food-borne illnesses.

And scientists know from previous research that our floors are littered with nasty, tiny organisms that can make us sick. Even in homes where the occupants have been educated about proper cleaning contain plenty of bacteria, he said.

Those organisms go beyond the bacteria studied in England, he said. Viruses cause many cases of food poisonings and Norovirus alone causes about half of food-borne illness outbreaks, he said. The study doesn't address how fast that virus gets transferred to food.

LeJeune's bottom line: Don't eat food off the floor. Ever.

It may be true that fewer bacteria get transferred to food in five seconds than in 10 seconds, "but waiting zero seconds is far better than waiting any seconds," he said. "I think one second is too long."